AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A device for at least one of controlling and monitoring an external technical process comprising:

an input functionality;~~,~~

an output functionality;~~,~~

a processing functionality; and

a plurality of logical links executed exclusively by said processing functionality, ~~the~~ results of said logical links being made available after ~~the~~ expiration of a specific time interval determined by said device, said device being connected with at least one higher-level unit for transfer of at least one process signal by way of a bus system to and from a plurality of components connected to said device, whereby a response time is determined by a cycle time of the at least one higher-level unit and by a signal cycle time over the bus system,

wherein said results of said logical links are made available after the expiration of a time interval that is shorter than said response time and can be evaluated by said device for triggering ~~said~~ actuators, and

wherein said at least one process signal relates to a switch-on function that is transferred from the at least one higher-level unit by way of said bus to said device and then to at least one of said components that controls and monitors the external technical process, and said logical

links relate to a shut-off function that is processed exclusively by said processing functionality of said device.

2. (currently amended): The device according to claim 1, wherein said at least one process signal is a process-influencing signal.

3. (currently amended): The device according to claim 1, wherein said at least one process signal is a process-monitoring signal.

4. (original): The device according to claim 1, wherein said plurality of components comprises at least one sensor.

5. (original): The device according to claim 1, wherein said plurality of components comprises at least one actuator.

6. (original): The device according to claim 1, wherein said plurality of components comprises components that control or monitor a safety parameter of the external technical process.

7. (canceled).

8. (original): The device according to claim 1, wherein said results from the processing of said logical links are made available after no more than 10 ms.

9. (original): A mixed module for decreasing the reaction time of a process control system comprising:

an input function for receiving an input signal from at least one sensor detecting a specific operating condition of a process,

an output function for sending a shut-off signal to an actuator in said process, and

a processing function for processing at least one corresponding logical link,

wherein said logical link is processed independently from a bus cycle, and a time for sending the shut-off signal to said actuator is determined by an internal cycle of said mixed module.

10. (original): The mixed module according to claim 9, wherein said sensor and actuator respectively monitor and control at least one safety parameter of said process.

11. (original): A method, comprising:

receiving a first sensor signal from a sensor;

in response to the first sensor signal, transferring a process signal from a first unit via a bus to a central processing unit;

forwarding a response signal from the central processing unit to the first unit within a guaranteed response time;

receiving a second sensor signal from the sensor; and

in response to the second sensor signal, processing the second sensor signal within the first unit within a time less than the guaranteed response time.

12. (original): The method according to claim 11, wherein the second sensor signal is an alarm signal.

13. (original): The method according to claim 11, wherein processing the second sensor signal comprises executing one of a plurality of predetermined logical relationships between predefined ones of the sensor signals, including the second sensor signal, and desired response signals.

14. (original): The method according to claim 11, further comprising:

subsequent to processing the second sensor signal, outputting a response signal directly to an actuator without sending the response signal via the bus or the central processing unit.